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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/439,225 11/12/99 SALDANHA

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021186 TM02/0801
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EXAMINER

HAVAN, T

ART UNIT

PAPER NUMBER

2672

DATE MAILED:

08/01/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

AMS

Office Action Summary

Application No.

09/439,225

Applicant(s)

SALDANHA ET AL.

Examiner

Thu-Thao Havan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6, 7. 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed February 2, 2001 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Examiner was able to retrieve the US patents, therefore they are considered. The non-patent literature is not considered because no copy was present in the current application.

Drawings

This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cone (US patent no. 5,850,222).

1. As to claims 1, 16, 19, 29, 32, 34, 38, and 44, the prior art Cone had:

A.) A method for producing an image of a computer-simulated mannequin wearing a garment as defined by selected mannequin and garment parameter values (**col. 2, lines 7-11; col. 3, lines 29-61; fig. 1 and 2A-3**). Cone teaches the VDRS (virtual dressing room system) image of a garment is generated by digitizing images of a mannequin with a person's figure wearing the garment in three-dimensional. The VDRS tailors the mannequin according to the measurements of the person's figure.

B.) The step of generating objects corresponding to a representative mannequin and a garment placed in a simulation scene within a three-dimensional modeling environment (**col. 4, lines 1-50; col. 5, lines 1-32**). The measurements of the person's figure are the generating objects. The VDRS uses the person's measurements to create a body data structure that represents the person's figure.

C.) The step of simulating draping and collision of the garment with the mannequin within the simulation scene to generate a three-dimensional rendering frame of the mannequin wearing the garment (**col. 6, lines 31-67; col. 7, lines 1-16; fig. 3-4**). The step of draping and collision of the garment is disclosed by Cone with the VDRS tailoring method. The tailoring method stretched the control points of the garment to fit the body area (mannequin) to make the garment drape or collide accordingly.

D.) The step of constraining portions of the garment to reside within or outside of particular shells defined around the mannequin in the rendering frame (**col. 13, lines 1-24; fig. 15 and 17**). Cone teaches the constraining portions of the garment by the fitting of the bikini to the mannequin. Based on the preference of the user, the bikini is fitted on the mannequin.

F.) The step of generating rendering frames containing mannequin or garment objects as defined by selected parameter values by shape blending corresponding objects of previously generated rendering frames (**col. 7-11; col. 13, lines 55-67; col. 14, lines 1-45; fig. 4-11, 15, and 18**). In figure 5, Onda teaches the different frames of the garment objects based on the structure of the person's figure. The "shape body" section of Onda starting in column 7 explains the different ways the mannequin is being shaped for the person's figure.

However, Onda fails to explicitly teach the step of rendering an image from the rendering frame. Onda does not explicitly uses the word "frame." Nevertheless, Onda teaches the frame by the displaying of a graphic image of a person modeling a garment. In figure 15, the VDRS system discloses the different frames of the mannequin wearing a bikini. The VDRS displays side view, back view of the garment to the person's body as the person's body is rotated based on the view angle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the step of rendering an image from the rendering frame because Onda teaches the displaying of garment in a mannequin in different three-dimensional images in separate frames (**col. 13, lines 55-67; col. 14, lines 1-45; fig. 4, 8, 11, 15, and 18**).

2. As to claims 2, 35, and 43, Onda discloses the rendered image is used to form a visual image on a computer display device (**col. 15, lines 45-67; col. 16, lines 1-5; fig. 14**). Onda teaches the computer graphics for rendering graphic objects of a person modeling a garment in a mannequin. The computer displays the image of the person's figure wearing the garment.

3. As to claims 5, 23, 42 and 45, Onda discloses the two-dimensional images are rendered from a rendering frame using a plurality of camera positions (**col. 6, lines 45-57; col. 3, lines 41-57**). Onda has the two-dimensional images in digitized forms by photograph the original images.

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4. As to claims 10-12 and 39, Onda discloses the separate rendering frames are combined into a composite two-dimensional image using Z-coordinates of the objects (**col. 10, lines 3-40; col. 13, lines 16-47; fig. 10 and 16**). In figure 16, Onda teaches the Z coordinates of the object by the RenderBody method. The RenderBody method uses the coordinates to render the two or three dimensional image.

5. As to claims 14-15, Onda discloses a network and a processor-executable instructions (**col. 1, lines 60-67; col. 2, lines 1-11**). Onda teaches the VDRS is in a computer graphics algorithm for manipulating a garment. The algorithm steps involve the modules for the computer to be executed therefore his system has executable instructions in computer network system.

6. The limitations of claims 3-4, 6-9, 13, 17-18, 20-22, 24-28, 30-31, 33, 36, 40-41 are analyzed as discussed with respect to claims 1, 16, 19, 29, 32, 34, 38, and 44 above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kotaki et al., US Patent No. 5,557,527

Vecchione, US Patent No. 5,504,845

Tremblay et al., US Patent No. 6,088,017

Eiley et al., US Patent No. 4,984,721

Hon, US Patent No. 6,113,395

Bostani, US Patent No. 5,987,929

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Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu-Thao Havan whose telephone number is (703) 308-7062. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-5359 for regular communications and (703)308-5359 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9500.

Thu-Thao Havan

July 24, 2001



MATTHEW LUU
PRIMARY EXAMINER